



Published in final edited form as:

*Psychol Serv.* 2010 February 1; 7(1): 11–26. doi:10.1037/a0017864.

## Race differences in psychopathology and disparities in treatment seeking: Community and jail-based treatment seeking patterns

Kerstin Youman, MA, Amy Drapalski, Ph.D., Jeff Stuewig, Ph.D., Karen Bagley, MPH, and June Tangney, Ph.D.

George Mason University

### Abstract

Whites in community samples utilize mental health services at a much higher rate than African Americans (Kessler, et al., 2005). Is this also the case among those in jails? In this study of jail inmates (229 African American, 185 White) there were no race difference in the overall need for mental health treatment (63% of participants had significant symptoms on the Personality Assessment Inventory) but race differences in the level and types of symptoms were evident. Additionally, while Whites were more likely to report pre-incarceration treatment there were no differences in treatment seeking or access to mental health programs while in jail, implying that if barriers to treatment in the community were removed (cost/insurance, location/transportation, time) racial disparities in treatment utilization may be reduced.

### Keywords

Mental illness; African American; Race; Treatment; Incarceration

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The overrepresentation of African-Americans in jails and prisons is well-documented at both the state and national levels (Bureau of Justice Statistics, 2004). Mental illness is widely recognized as a risk factor for incarceration (Council of State Governments, 2002; Human Rights Watch, 2003; Jordan, Schlenger, Fairbank, & Caddell, 1996; Teplin, 1984, 1990, 1994; Teplin, Abram & McClelland 1996; Torey, 1995; Veysey & Bichler-Robertson, 2002), yet little is known about the role that race differences in mental illness or mental health treatment utilization might contribute to disproportionate rates of incarceration.

Two theories suggest that African Americans entering jail may suffer from more symptoms of mental illness and thus have different needs for treatment, for example, due to the “weathering” effects of racism and poverty (Geronimus, Hicken, Keene & Bound, 2006), because of “racial biases” in treatment access prior to incarceration, and/or due to racial

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Correspondence concerning this article should be addressed to Kerstin Youman, Department of Psychology (MSN 3F5), George Mason University, Fairfax, VA 22030. Electronic mail may be sent to [kyouman@gmu.edu](mailto:kyouman@gmu.edu).

The second author’s affiliation has changed since the research was completed to Amy Drapalski, Ph.D., VISN 5 Mental Illness, Research, Education, and Clinical Center.

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Preliminary results were presented at the August 2005 and August 2006 meeting of the American Psychological Association in Washington DC.

biases on the part of decision makers who determine whether problem behavior deserves treatment vs. punishment (Snowden, 2001). Consistent with Andersen's (1995) Socio-Behavioral Model of treatment seeking, differences in need for treatment and barriers to treatment (personal beliefs and enabling resources of the system) may result in racial disparities in treatment once incarcerated. Effective and culturally sensitive treatment requires that mental health providers and other correctional staff be aware of the unique mental health needs of African American and White inmates, to the extent that they exist.

## Race and Incarceration

Whereas African-Americans comprise approximately 13% of the total U.S. population they comprise an estimated 40% of incarcerated individuals; in comparison 75% of the U.S. population is White, but Whites comprise an estimated 40% of those incarcerated (Bureau of Justice Statistics, 2004; U.S. Census Bureau, 2000). African-American men are at higher risk of being incarcerated in state or federal prisons at some point in their lifetime, 32%, versus 17% of Hispanic males and 5.9% of White males (Bureau of Justice Statistics, 2004).

## Race and Mental Illness

There is good reason to suspect that mental illness might disproportionately affect African Americans, thus contributing to their overrepresentation in the corrections system. Theoretically, racism may have adverse effects on the mental health of African-Americans through multiple pathways: unfair treatment from societal institutions which reduces socioeconomic status and opportunities, perceived discrimination in African-Americans with resultant increases in psychological stress, and the acceptance of negative cultural stereotypes (Geronimus, Hicken, Keene & Bound, 2006; Williams & Williams-Morris, 2000).

## Race differences in the prevalence of mental illness

Although there are multiple reasons to expect that African-Americans (AA) would experience higher rates of mental illness than Whites (W), the data so far has not supported this notion. Estimates of the prevalence of mental disorders in the community provided by two epidemiological studies, the Epidemiological Catchment Area (ECA) study (Robins & Regier, 1991) and National Comorbidity Study (NCS) (Kessler et al. 1994) show that, to the extent there are race differences in mental illness, African Americans have a slightly but significantly lower prevalence of current Antisocial Personality Disorder, current Drug Abuse/ Dependence, and affective disorders. The prevalence of current Antisocial Personality Disorder in males, based on ECA findings, was slightly lower for AAs (0.69%) than Ws (0.85%) and the same trend was found in the NCS. The rate of current Drug Abuse/ Dependence was similar for AA (1.73%) and W (1.84%) males in the ECA report; the NCS study found AAs to have significantly lower rates of any substance use disorder than Ws. AA males had slightly lower rates of current major depression, according to the ECA, with AAs at 1.4% and Ws at 1.6%. No significant differences were found for bipolar I or II disorders. The NCS found a stronger differential between the races for affective disorders with AAs having an *OR* of .63 (95% *CI* 0.56 – 0.87) versus Ws. <sup>1</sup> This is substantiated by a more recent community study of over 130,000 adults showing that African Americans were less likely to report at least one *Diagnostic and Statistical Manual of Mental Disorders*, 4th

<sup>1</sup>There are sampling problems in the ECA study in that middle class African Americans were excluded from the sample, elderly African Americans were over-sampled, and low income African American males were undersampled (Neal & Turner, 1991). The NCS sample on the other hand was weighted to match demographic and socioeconomic characteristics of the U.S. Significant race differences in diagnoses cannot be explained by differences in income and education since these variables were controlled for in data analysis. Both used structured clinical interviews to diagnose disorders.

edition (DSM-IV) symptom of mental illness than Whites,  $OR = 0.81$  (95%  $CI$  0.75 – 0.88), and have lower odds of serious mental illness,  $OR = 0.81$  (95%  $CI$  0.71 – 0.93), relative to Whites (Harris, Edlund & Larson, 2005).

Further, the same trend was observed in the scant research in assessing rates of mental illness by race in jail settings. Estimates of the prevalence of mental disorders in jails are based primarily on data collected from 1983–1984 on one large sample ( $n = 728$ ) of male inmates (Teplin, 1994) and a similar data set collected on one sample of female jail inmates ( $n = 1272$ ) from 1991 (Teplin, Abram & McClelland, 1996). Diagnoses were made shortly after booking into the jail based on DSM-III criteria using the National Institute of Mental Health Diagnostic Interview Schedule (NIMH-DIS: Robins, Helzer, Croughan, & Ratcliff, 1981). Over 60% of the inmates in these studies had current symptoms of at least one of the assessed disorders (Teplin, 1994; Teplin, Abram & McClelland 1996). Significant race differences were found, with African-Americans having lower rates of current disorders than Whites for major depressive episode ( $p < .001$  for males,  $p < .01$  for females), drug abuse disorders ( $p < .0001$  for males,  $p < .01$  for females), and antisocial personality disorder ( $p < .01$  for males,  $p < .01$  for females). In short, Teplin's research indicates that African-American jail inmates may have a lower prevalence of current mental disorders than Whites, paralleling community studies.

## Race Differences in Mental Health Treatment

Consistent with Andersen's (1995) Socio-Behavioral Model of health care treatment seeking, differences in the need for treatment as among African Americans, as suggested by epidemiological studies, may partially explain lower rates of treatment seeking by African Americans relative to Whites. Nonetheless, there is ample evidence from research in community settings that even when African Americans are in need of mental health treatment, they are less likely to receive it (Snowden, 2001; Snowden & Yamada, 2004; Wallace & Constantine, 2005). For instance, Kessler, Demler, Frank, Olfson, Jin, and Walters (2005) found that African-Americans with a mental illness have an odds ratio of .50 (95%  $CI$  0.4 – 0.7), relative to Whites with a mental illness, for receiving any kind of mental health treatment, even after adjusting for the severity of the disorder.

Explanations for these differences in treatment utilization usually fall under one of two types (Dearing & Twaragowski, In press). First, group or cultural differences in attitudes toward treatment or expectations of treatment (predisposing characteristics) might explain treatment seeking disparities (Wallen, 1992). Cultural mistrust was shown to predict negative treatment seeking attitudes among African American college students (Nickerson, Helms & Terrell, 1994; Whaley, 2001). Delphin and Rollick (1995) found that ethnic identity and alienation from the mainstream indirectly affected psychological help-seeking in African American college students mediated by attitudes and knowledge about services. However, such effects are not always evident. In a number of recent studies with African American samples, cultural mistrust was not predictive of treatment seeking (Crosby, 2007; Evans, 2007; Mcneil, 2006; Moustafa-I, 2007). Moreover, using data from Robins and Regier's (1991) National Comorbidity Study, Diala, Muntaner, Walrath, Nickerson, LaVeist, and Leaf (2000) found that African-Americans were more predisposed to seek professional services,  $OR = 1.5$  (95%  $CI$  1.3–1.8), more comfortable talking about problems with a professional,  $OR = 1.2$  (95%  $CI$  1.0–1.4), and less embarrassed about friends knowing about professional service use,  $OR = 2.1$  (95%  $CI$  1.7–2.4), prior to engaging in services relative to Whites. Similarly, in a study of mothers obtaining treatment for their children at a community mental health center, Colonna-Pydyn, Gjesfeld and Greeno (2007) found that, relative to African American mothers, White mothers had more negative expectations of treatment,  $p < .02$ . Thus, recent evidence in community studies suggests that cultural

differences in attitudes, preferences, expectancies, and stigma are unlikely to explain racial disparities in receipt of treatment.

The second most common explanation is that treatment disparities may be due to differential access to enabling resources (location of facilities/transportation, insurance, economic resources, and time). Studies have implicated economic explanations for mental health disparities concluding that since African Americans often reside in poorer communities, have fewer resources, and less job opportunities, their access to employment based health insurance and thus treatment is limited, relative to Whites (Muntaner, 1999; Mutchler & Burr, 1991).

## Rationale for the Current Study

Exploring race differences in treatment seeking or access to mental health services during incarceration is important, because when mental health treatment is offered it can reduce recidivism rates. For example, in a study of 333 mentally ill prison inmates (Gagliardi, Lovell, Peterson & Jemelka, 2004), those who spent time in a residential treatment program while incarcerated had a lower likelihood of felony recidivism (unadjusted  $OR = 2.35$ , 95%  $CI 1.46-3.77$ ).

The Socio-Behavioral Model of treatment seeking proposes three key determinants which might explain race differences in treatment seeking: predisposing characteristics (e.g., attitudes toward treatment), enabling resources (e.g., knowledge about services, financial resources, insurance coverage) and need (perceived and assessed). Jail studies are a powerful vehicle for further examining the relative importance of two theoretically defined barriers to treatment -- attitudes toward treatment versus logistical or systemic barriers to treatment -- as an explanation for racial disparities in mental health treatment utilization. Race differences in mental health treatment in the community can be due to differences in attitudes towards treatment, differences in access to treatment, or both. However, in a jail context, many of the logistical barriers to treatment have been removed (e.g., lack of financial resources, lack of insurance, transportation requirements, lack of time to participate). To date correctional studies typically have not looked at whether race might be a factor in psychological treatment seeking and access to treatment, and no studies were found comparing treatment seeking prior to incarceration with treatment seeking over the course of incarceration.

Current data on race differences in symptoms of mental illness, lifetime history of treatment, treatment seeking among the incarcerated, and access to treatment over the full course of incarceration are needed to further explore the extent to which observed racial disparities in treatment utilization are due to each of Anderson's three theoretical distinctions. Teplin's studies of jail inmates are a seminal source of information on jail inmates' mental illness; however, these studies may not be generalizable to the inmates of today because the data were collected decades ago. Since then racial disparities in incarceration rates have widened (The Sentencing Project, 2008).

Because African Americans are exposed to poorer living conditions than Whites and additional stress related to racism (U.S. Department of Health and Human Services, 2001), there may be race differences in the manifestations of mental illness between Whites and African Americans. It is possible that there are indeed differences in symptoms that have not yet been detected in previous studies because they used strictly DSM based criteria that may not be sensitive to these differences. There is a building consensus that symptoms of mental illness are better understood from a dimensional rather than categorical perspective (Krueger & Piasecki, 2002). Most individuals with mental illness have problematic symptoms included in a number of current DSM diagnostic categories and assigning discrete diagnoses

is not ideal for comparing the symptoms of mental illness experienced by Whites and African Americans.

The Personality Assessment Inventory (PAI; Morey, 1991) utilized in the current study assesses psychological symptoms on a continuum but was also constructed to map onto DSM-IV diagnoses. Thus the PAI can be used to identify clinically significant levels of psychopathology – defined psychometrically--for a broad range of symptoms and yet can yield data comparable to Teplin's earlier jail studies by categorizing symptoms in clinical scales closely aligned with DSM diagnoses. In addition, a broader range of clinical symptoms are assessed with the PAI than were included in previous jail studies. The PAI also allows analyses at the subscale level which may identify racial differences in the manifestation of symptom clusters.

## Aims of the Current Study

The current study provides comprehensive and current information on race differences in psychological symptoms as well as treatment seeking and access to treatment prior to and during incarceration in a large sample (N = 414) of persons charged with felony offenses. It is hypothesized that 1) due to the potential exposure to additional stressors of both individual level discrimination and institutionalized racism as well as discrepancies in quality of life indicators for African Americans there may be differences in the manifestation of mental illness symptoms as assessed by self-report on the Personality Assessment Inventory (PAI) indicating race differences in need for treatment. It is further expected that 2) there will be large disparities in treatment history, reflecting race differences in enabling resources in the community, but that 3) treatment seeking rates in jail will be fairly similar, due primarily to the removal of logistical barriers to treatment access, and finally 4) that jail based programs and services will be distributed equitably since race is not identified on program request forms in this jail, thus reducing the risk of racially biased treatment access. Socio-economic status which can be a risk factor for mental illness as well as a barrier to treatment will be controlled for in data analyses.

## Method

### Participants

Data on symptoms of mental illness at the outset of incarceration were gathered from 414 White and African-American pre- and post-trial male and female inmates held in a metropolitan area county jail. These data were gathered as part of a larger on-going longitudinal study of moral emotions and criminal recidivism. Because a key aim of the larger project was to evaluate the effectiveness of jail programs and services, eligibility criteria were developed to identify inmates likely to serve 4 months or more. Inmates were eligible to participate if they (1) were either (a) sentenced to a term of 4 months or more, or (b) arrested and held on at least one felony charge other than probation violation, without bond or on total bond greater than or equal to \$7,000; (2) were initially assigned to the jail's medium or maximum security "general population" (e.g., not in solitary confinement), and (3) had sufficient language proficiency to complete study protocols in English or Spanish. Due to the nature of the eligibility criteria results will be most generalizable to more serious or felony offenders.

Of the inmates who were found eligible and invited to participate in this multi-wave longitudinal study, approximately 75% agreed to participate. Of the 582 who consented and began participation, 82% remained at the jail long enough to complete the measures in this study. The proportion of consenters that did not complete the measures did not differ by race. Participants received \$15–18 honorarium for completing the full intake assessment<sup>2</sup>.

Participants self-reported race from a list of options: African-American/Black, Asian/Pacific Islander, Mexican American, Middle Eastern, Mixed, Native American, Other, Other Hispanic, and White. Participants who selected White ( $n=185$ , 45%), and African-American ( $n=229$ , 55%) were included in this sample (all were English speakers). Participants were 68% male (see Table 1). Neither gender composition (see Table 1) nor age differed by race. The average annual income in the year prior to incarceration was \$21,375; African-Americans had a lower income than Whites ( $t = 3.61$ ,  $p < .001$ ). Both groups averaged 11.9 years of education ( $t = 1.33$ ,  $p > .05$ ). Index offense charges can be grouped into five broad categories: violent (11%), drug related (17%), theft related (44%), non-compliance with a legal mandate (15%) and miscellaneous (13%). Types of index offenses did not vary by race,  $\chi^2(4) = 7.21$ ,  $p > .10$ , nor did the average number of index offense charges per inmate ( $M = 2.3$ ,  $SD = 1.4$ ,  $t = 0.0$ ,  $p > .10$ ).

### Procedures and Measures

Shortly after assignment to the general population, eligible inmates were presented with a description of the study, possible risks and benefits of participation and were assured of confidentiality and their right to discontinue participation at any point without negative consequences. Inmates who signed the informed consent agreement first completed a face-to-face interview which included questions about demographics, level of education, and income. In the next two sessions, inmates completed "touch-screen" computer-based questionnaires. The computer presented questions visually and read them aloud to participants via headphones, thus accommodating participants with limited reading proficiency. Participants completed the Personality Assessment Inventory (PAI; Morey, 1991) during the second computer-based session.

Clinically significant levels of mental illness were assessed using the PAI, a 344 item self-report measure of psychopathology and personality traits. In contrast to such measures as the MMPI (which was developed through criterion keying methods), the PAI was developed through a construct validation approach, using both empirical and rational methods of test construction. The PAI includes 4 validity scales: Positive Impression Management (PIM), Negative Impression Management (NIM), Inconsistency (ICN), and Infrequency (INF) and 11 clinical syndrome scales: Somatization (SOM), Depression (DEP), Anxiety (ANX), Anxiety-Related Disorder (ARD), Mania (MAN), Paranoia (PAR), Schizophrenia (SCZ), Borderline Features (BOR), Antisocial Features (ANT), Drug Problems (DRG) and Alcohol Problem (ALC) Scales. With the exception of the Drug and Alcohol Problem Scales, all clinical scales include three to four subscales reflecting the multidimensional structure of most mental illnesses. Subscales were developed through thorough literature reviews aimed at identifying the core components of each clinical disorder and individual items were written to directly target these components.

When analyzing items for inclusion in the PAI during its development, questions that appeared to be interpreted differently by different racial, gender or age groups were eliminated (Morey, 1996). PAI Clinical scales in this sample with all ethnic groups included demonstrated good to excellent levels of reliability (alphas range from .81 to .92) (Name removed for blind review, 2009, In press). These estimates are similar to those observed in the census matched standardization sample (Morey, 1991) and in correctional samples (Edens & Ruiz, 2005). Validity indices for the PAI were used to screen questionable data using T score cutoffs recommended by Morey of 70 for PIM, 92 for NIM, and either a combination of 75 for INF and 70 for INC or .70 for INF and 73 for INC. In

<sup>2</sup>The honorarium was increased from \$15 to \$18 for subjects entered later in the study. This particular jail began charging the inmates rent fees. The increase was intended to accommodate that change.

total 6.0% of participants were eliminated from results related to the PAI due to validity concerns with no difference by race ( $\chi^2 = 0.01, p = .9$ ).

Prior mental health treatment was obtained from jail records. At booking, inmates self-reported past psychiatric hospitalization, outpatient treatment, medication for “moodiness, nerves, sleep problems, or depression” and current medication “for above listed concerns.”

Requests and enrollment in jail-based programs and services over the course of incarceration were collected from official records in the Sheriff’s Inmate Programs database (SIP). An orientation to programs and services at the jail is offered to all inmates in the general population. Inmates are then permitted to submit requests for programs. Programs were categorized by general content areas into four broad domains that are most conceptually similar to the types of treatment reported for treatment history: Psycho-educational programs including violence intervention, anger management, parenting skills, etc.; Substance Intervention including Alcoholics Anonymous, Narcotics Anonymous, and treatment community model programs, etc.; Support programs including inmate support groups, health support groups and process groups, etc.; and Forensic services including assessment, crisis management, mental illness groups and medication groups. Because resources at the jail were limited, not all requests could be accommodated. Enrollment records provide information about which inmates were permitted to attend the programs and services they requested, data on actual attendance, however, was not recorded by the jail.

## Results

### Symptoms of Mental Illness

Psychopathology was pervasive in this sample with about 63% of inmates at clinically significant elevations on at least one clinical scale of the PAI. This overall incidence of symptoms of mental illness did not differ by race ( $\chi^2 = .10, p > .10$ ). Clinically significant was defined as exceeding a T score of 69 (Morey, 1991) and is somewhat analogous to a clinical diagnosis since the PAI was designed to map onto DSM diagnoses. Elevations at this level are two standard deviations above the mean. According to the PAI manual, only about 2% of nonclinical respondents would have an elevation this high so it is “a useful means for determining whether certain problems are clinically significant, because relatively few normal adults will obtain markedly elevated scores” (Morey, 1996, p. 9). African Americans in this sample were less likely to have extreme elevations on multiple scales relative to Whites suggesting lower rates of co-morbidity among African Americans ( $\chi^2 = 6.5, p = .01, OR = 0.51, 95\% CI = 0.30-0.85$ ).

There were race differences in the level and nature of inmates’ symptoms. MANOVA analysis testing for race, gender and race by gender interactions predicting PAI clinical scale and subscale means revealed race differences in the types of symptoms that were elevated for a number of clinical scales, Wilk’s  $\lambda_{(42, 364)} = 4.91, p = .000$ . Follow-up ANOVAS at the clinical scale level (Table 2) revealed that African-Americans endorsed higher levels of manic symptoms (of a medium effect size) and paranoia (small effect size) while Whites endorsed higher levels of depressive symptoms (of a medium effect size), anxiety symptoms, borderline personality features, alcohol problems and drug problems with small effect sizes. There were no race differences in clinical scale T scores for somatic symptoms, anxiety related disorders, schizophrenic symptoms, or antisocial features. Although main effects of gender are beyond the scope of this paper (see Name removed for blind review, 2009), race by gender interactions are potentially important in understanding how symptoms might vary by race. The race by gender interaction was not significant in the MANOVA (Wilk’s  $\lambda_{(42, 364)} = 1.17, p > .05$ ), however.

All clinical scales were further analyzed for racial differences at the subscale level. This analysis revealed further race differences in mental illness symptomatology (Table 2). In fact, although only two mean differences would be expected by chance, there were 23 significant differences out of the 41 scale and subscale comparisons made.

Whites had higher mean T scores than African Americans on the Affective and Physiological subscales of the Anxiety scale and higher means of the Cognitive and Affective subscales of the Depression scale. Whites showed higher means on the Borderline Features subscales of Affective Instability, Identity Problems, and the Self-harm subscale -- comprised of items reflecting negative consequences associated with impulsive behaviors. The stimulus seeking subscale on the antisocial personality scale was also higher for Whites.

The higher prevalence of clinically significant Mania symptoms in African-Americans was mostly due to elevated Grandiosity for which African American means were nearly one standard deviation higher than Whites; there was a small effect size elevation for the Irritability subscale but virtually no difference on the Activity Level subscale. Consistent with elevated Grandiosity symptoms, African Americans also had more elevated levels of Egocentricity on the Antisocial Personality scale. African Americans also had a medium effect size elevation on the Persecution subscale of the Paranoia clinical scale and a small elevation on the Hypervigilance subscale. African Americans had higher levels of Obsessive Compulsive symptoms and Psychotic experiences.

Although there was no race difference in the overall proportion of inmates with an elevation on at least one clinical scale of the PAI, there were differences in the prevalence of certain types of disorders which generally paralleled the mean differences reported above. More Whites had clinically significant elevations of Anxiety (total and all three subscales), Depressive (total, Cognitive and Affective subscales yet not Physiological), Borderline (total, Self-harm, and Affective Instability), Antisocial (Stimulus Seeking), Alcohol Problems, and Drug Problems; whereas, more African Americans had extreme elevations of Mania (total and Grandiosity only), Antisocial Features (Egocentricity) and Paranoia (Persecution only). Although African Americans had higher mean levels of Obsessive Compulsive symptoms, there was no difference in the percentage with extreme elevations. The same was true for Psychotic symptoms; there was a clinically significant mean difference but not a higher prevalence of T scores above 69.

Since low SES status is a risk factor for both mental illness and incarceration, secondary analyses were conducted to rule out SES as an explanation for race differences in means and clinically significant levels of symptomatology. The observed race differences in PAI clinical scales were robust to statistical controls for annual income and educational attainment in hierarchical linear regressions. Separate regressions were run for each clinical scale. In each, income in the year prior to incarceration and years of education were both entered in the first step. In the second step, race was entered to test the incremental predictive value of race. While there were main effects for income or education in predicting means and clinically significant symptoms for a number of the clinical scales, race was incrementally predictive of differences above and beyond socio-economic variables in each case. With all three variables in the models (income, education and race) there was a significant main effect for education such that education negatively predicted symptoms of Anxiety, Depression, Mania, Paranoia, Schizophrenia, Borderline, Antisocial, Alcohol and Drug symptoms. Income negatively predicted a more narrow range of symptoms: Anxiety, Paranoia, Borderline and Drug symptoms.

An alternative hypothesis is that racial differences in symptoms could be explained by a differential prevalence of life stressors for White versus African American inmates. The PAI



Stress scale provides an index of common life stressors including financial problems, stability of home life as well as social or work-related stressors. These data suggest that in terms of mean levels, life stress was similar ( $F(1,362) = 3.10, p > .05$ ) for White inmates ( $M = 66.75, SD = 14.26$ ) and African American inmates ( $M = 64.68, SD = 14.00$ ). Whites did have a higher prevalence of clinically significant symptoms of stress ( $\chi^2 = 7.26, p = .007$ ). Therefore separate regressions were run for each of the clinical scales that showed significant race differences (Anxiety, Depression, Mania, Borderline, Drug Problems, and Alcohol Problems). In each case, race was significantly related to clinical scales above and beyond life stress, with the exception of Borderline Features.

Finally, it is possible that racial differences in the accuracy of self-reports might partially explain discrepancies in the observed levels of symptoms. Perhaps African-Americans were downplaying or under-reporting symptoms or Whites were exaggerating their symptoms. The INF, ICN, PIM, and NIM scales from the PAI were examined to assess the validity of responses and examine potential race differences in response styles. There were no mean race differences in the T scores for any of the validity indices, nor in the percentage of inmates whose profiles were eliminated from analyses due to questionable validity (6.0% total including PIM, NIM, ICN, INF). Therefore, differences in response styles or invalid reporting are unlikely to explain racial differences in the observed mean levels of symptoms.

### Mental Health Treatment Prior to Incarceration

Are African American inmates less likely to have a history of mental health treatment paralleling observed differences in previous research? At intake, Whites self-reported significantly higher rates of past psychiatric hospitalization, past outpatient treatment, past medication for moods and current psychiatric medication relative to African-Americans (Table 3). In addition, separate logistic regressions controlling for level of education and income in the year prior to incarceration did not change results. There were no main effects for income or education in predicting previous psychiatric hospitalization and African Americans were still significantly less likely to have a history of hospitalization controlling for both SES indicators ( $OR = 0.51, p = .06$ ). For prior outpatient treatment, psychiatric medication history, and current medication there were significant main effects for education ( $OR = 1.32, OR = 1.34, OR = 1.56$ , respectively,  $ps < .001$ ) but not income. Race, however, was a significant predictor above and beyond education with African Americans odds ratios of 0.31, 0.30, and 0.20 respectively (all  $ps < .001$ ).

Further, the same analyses were run on a sub-sample of inmates with clinically significant elevations on any one of the PAI clinical scales ( $T > 69$ ) indicating a need for treatment. In this “high need” sub-sample results were nearly identical to those with the full sample. African Americans in need of treatment were much less likely to have received treatment in each of the four categories than Whites in need of treatment: psychiatric hospitalization,  $OR = 0.34$  (0.15–0.78); outpatient treatment,  $OR = 0.24$  (0.11–0.51); history of psychiatric medication,  $OR = 0.26$  (0.14–0.51), and current psychiatric medication  $OR = 0.22$  (0.08–0.64), all  $ps < .01$ . Therefore differences in the overall need for psychological treatment do not explain race differences in treatment history.

### Treatment Seeking in Jail

Do race differences in treatment utilization persist in the context of incarceration? Although race differences in treatment history were substantial in this sample, no such discrepancies were found in treatment seeking over the course of incarceration. There were no race differences in either the number of programs requested ( $M = 1.62$  (2.04),  $t(397) = 0.13, p = .90$ ) or the number of programs in which inmates were subsequently enrolled ( $M = 1.36$  (1.82),  $t(397) = 0.20, p = .84$ ). The majority of Whites and African-Americans requested at

least one program (60%, Table 3). The most common programs requested were psycho-education groups, with over 38% requesting them. The least requested were forensic groups with fewer than 13% requesting them. When examining requests by race, there were no significant differences between the two groups in the types of programs requested. The same was true of the subset of inmates with significantly elevated PAI clinical scales; no race differences in requests were found among those in need of treatment.

Due to limited resources, not all requests are filled, and jail staff essentially becomes gatekeepers to program enrollment. Results indicate that this “gatekeeping” function operated similarly for Whites and African Americans. There were no significant race differences in enrollment rates across the different types of programs: psycho-educational, support, substance intervention, and forensic groups for the full sample (Table 3) or subsample with PAI elevations indicating need for treatment. There was no evidence of preferential treatment by race in the proportions of inmates who requested programs and were then able to enroll in those programs. Overall, of the 238 inmates who requested a service, 193 (81.1%) were subsequently enrolled with no differences by race,  $\chi^2(1, 237) = 0.53, p = .47, OR(95\% CI) = 1.27, (.67-2.44)$ . For each category of program requested there were equal proportions of participants in both racial groups enrolled in each type of program: psycho-educational (82.2%), support (87.9%), substance intervention (83.1%), and forensic groups (100%).

## Discussion

### Racial Disparities in Treatment Seeking in the Community Disappear in Jail

It is important to eliminate racial treatment disparities in the community because mental illness increases the risk of incarceration. In addition, research shows that although African Americans in community settings may not have as high a lifetime risk of mental illness relative to Whites, mental illness among African Americans tends to be more persistent (Breslau, Aguilar-Gaxiola, Kendler, Su, Williams & Kessler, 2006). This persistence is likely explained, at least in part, by the pronounced race differences in treatment utilization in the community.

Results from this study indicate that there is remarkably little difference in treatment seeking while in jails even though African-American inmates were much less likely to have participated in mental health treatment prior to incarceration than White inmates. Pre-incarceration treatment disparities did not reflect an overall difference in the need for treatment, one dimension of Anderson’s Socio-Behavioral Model as a large but equal proportion of both groups (63% of inmates in this sample) had clinically significant symptoms of mental illness. Further, pre-incarceration treatment disparities were just as pronounced among those with clinically significant elevations of mental illness symptoms as in the full sample.

The evidence here argues that logistical system barriers, or lack of enabling resources in the community, rather than psycho-cultural predisposing barriers of the individual are more likely to explain mental health treatment disparities since race differences in treatment seeking virtually disappear in jail. It is unlikely that vast changes in attitudes, expectations or cultural beliefs about treatment occurred over the course of incarceration. Yet, in the jail, when resources were available to those in need, when inmates were educated about the availability of programs and services, and when time allowed for participation, African Americans were nearly identical to Whites in treatment seeking behaviors.

The barriers to treatment which differentially impact African Americans appear to be more complex than mere socio-economic status, consistent with prior research. In this sample of

felony offenders, education partially explained variance in the history of outpatient treatment and psychiatric medication, but race was incrementally predictive of mental health treatment prior to incarceration. Furthermore, there were no significant race differences in educational attainment in this sample. Surprisingly, while statistically controlling for education and race, income was not predictive of treatment history. So, even though African Americans in this sample had an income that was only 72% of Whites' income, this was not supported as an explanation for race differences in treatment history. Access to mental health treatment in the community is a complex issue. It is certainly possible that there are other enabling resources in the community not directly measured in this study (such as health insurance coverage, location of treatment facilities, available time to participate in treatment, the length of waitlists at local treatment facilities, knowledge about available community resources), that could differentially affect Whites and African Americans and their access to treatment in the community

There could have been contextual factors that would explain racial parity in treatment seeking in jail despite pre-incarceration treatment disparities that were not accounted for by the logistical ease of attending jail-based treatment. For instance, treatment in jail might have been court-ordered or seen as a way to reduce one's sentence increasing the likelihood that African Americans would seek treatment. In this sample, however, there were very few inmates with court mandated treatment. The only type of treatment that was court ordered was drug or alcohol treatment and although motivation data on the full sample was not available, preliminary analyses suggest that only about 16% of inmates who participated in substance intervention were required to do so. Also in this subsample, fewer than 20% of inmates who participated in any kind of mental health related programs or services indicated that they were motivated to participate in an attempt to reduce their sentence. There is also the possibility that stigma for seeking mental health treatment operates differently in jail than in the community. Although based on previous literature, it does not seem likely that differences in stigma explained lower rates of treatment for African Americans in the community; it is possible that there was a stronger stigma for treatment seeking among Whites in the jail setting compared to the community setting.

A key finding in this study was that inmates' requests were processed and enrollment was granted similarly for African-American and White inmates. Clinician subjectivity in determining treatment options has been implicated as part of the problem in racially unequal treatment in health settings (Smedley, Stith, & Nelson, 2003). In an institutional setting like the jail, it is possible to deliver services in a fair and race-blind manner. Although not everyone who submitted a request form was able to enroll in their desired programs due to limited resources, race was not identified on the forms so they were processed without regard to race or ethnicity. Institutions vulnerable to race bias in service delivery should consider removing indicators of race from the decision making process, where feasible.

### **Examining Race Differences in Mental Illness as an Explanation for Disproportionate Rates of Incarceration**

Theoretically, racially differential rates of mental illness and/or differential rates of incarcerating the mentally ill might explain why African Americans are much more likely to be incarcerated than Whites. The research literature reviewed earlier argued against this explanation. In community studies, rates of mental illness have been generally comparable by race and, if anything, slightly lower for African Americans. The same appeared to be true in jails. Again, in this study, jail inmates of both races had alarmingly high rates of clinically significant symptoms of mental illness (63%) and symptoms of mental illness are known risk factors for incarceration and recidivism (Council of State Governments, 2002; Gagliardi, Lovell, Peterson & Jemelka, 2004; Human Rights Watch, 2003). Thus, there is a high need for mental health treatment in jails for both groups. Addressing these mental

health concerns could reduce the rising incarceration rates that resulted from the deinstitutionalization of the mentally ill.

### **Race Differences in Manifestations of Symptoms among Jail Inmates: Implications for Culturally Sensitive and Responsive Treatment**

Although similar in overall need for treatment based on extreme elevations of clinical scales, there appear to be racial differences in the types of mental illness symptoms experienced by inmates – differences that have implications for treatment and prevention.

White inmates seem particularly prone to both affective and substance use problems, as well as elevated impulsivity, whereas African American inmates had more problematic levels of feelings of persecution, grandiosity, and egocentricity. These findings are consistent with the hypothesis that the experience of racism could result in mental health differences between Whites and African Americans, although these African American specific elevations in symptom manifestation did not emerge in prior epidemiological research using strict DSM diagnoses.

It is not surprising considering the history of institutional and individual level racism in U.S. society, that African Americans inmates would more strongly endorse items reflecting feelings of persecution; feelings based in reality that may need to be attended to in clinical interactions between counselors with African American clients in the community and between forensic psychologists and incarcerated clients (see Name removed for blind review, 2009). Grandiosity and egocentrism could also theoretically be caused by exposure to racism. It is possible that grandiose symptoms serve as a protective factor for psychological distress (e.g. depression or anxiety) in a historically oppressive society. Narcissism, a closely related psychological construct, is conceptualized by prominent theorists (Adler, Horney, Kernberg), as defensive pride that is protective from feelings of inferiority and shame, but that can result in stronger negative reactions to perceived threats (McGregor, Nail, Marigold & Kang, 2005). It could be reasonably argued that African-Americans are exposed to a greater number of ego threats, especially when encountering racist attitudes and behaviors in society. Thus, grandiosity could serve as a defense mechanism in that respect. However, grandiosity has also been implicated as a risk factor for criminal behavior. For example, grandiosity is the most stable feature of pathologic narcissism, which is related to a disregard for the rules of society and rage-related crime (Ronningstam & Gunderson, 1989). Narcissistic inmates have been found to respond aggressively to ego threat (Cale & Lilienfeld, 2006). These narcissistic feelings, while mitigating negative feelings about the self which might otherwise lead to shame, guilt, depression and/or anxiety, may engender notions of entitlement and attitudes that promulgate criminal behavior in the community. It is also possible that African Americans not grounded in Afro-centric cultural traditions that emphasize the importance of the collective self rather than focus on the individual (Boykin & Ellison, 1995), are more prone to developing defensive grandiosity in the face of discrimination, making them more likely to commit crimes or have negative interactions with the police resulting in higher rates of arrests. Cultural differences between Whites and African Americans may also help explain disparities in treatment utilization in the community. Whites are more closely linked to Euro-centric culture which promotes the ideals of emotional control, impulse control, individuality and self-esteem; whereas Afro-centric culture promotes the ideals of the collective-self, harmony with others and emotional expression (Boykin & Ellison, 1995). The symptoms of mental illness higher among Whites than African Americans in this study (emotional dysregulation and impulsivity) are alien to Euro-centric culture while those higher among African Americans (higher regard for self than others and egocentricity), are in line with Euro-centric culture, yet more alien to Afro-centric culture. The symptoms of mental illness typically addressed in mental health (community or correctional) and

prevention settings– impulsivity, substance abuse and mood disorders- are more fitting for Whites than African Americans, based on findings in this study. Treatment providers may be more likely to address those problems typically considered divergent with mainstream Euro-centric culture because they are more likely to be recognized as psychologically deviant and, therefore, more likely to be targeted for treatment.

### Limitations

There are several limitations of this study. This sample was confined to felony offenders in one Mid-Atlantic suburban jail, so the generalizability of the results to less serious offenders may not be appropriate. This is also a jail that strives to be a particularly well run facility in terms of respect for inmates and better than average availability of programs and services. Another limitation is that treatment requests and enrollments were included but measures of treatment engagement and completion were not. Additionally, although inferences have been made about treatment seeking attitudes, they were not explicitly measured here. Nor were racial processes like exposure to discrimination and racial identity which might explain differences in mental illness symptoms detected through race comparisons in this sample. It is also possible that stigma plays a role in racial disparities for treatment utilization in the community but that stigma about treatment seeking is reduced or behaves differently in a jail setting because the main “audience” is other inmates, not family or friends.

### Implications for Practice

Results from this study suggest that jails are a good place to capitalize on the willingness of individuals to seek treatment for mental illness, especially since elevated symptoms are so prevalent. It is important to address the symptoms of inmates of both races (including mood disorders, impulsivity, substance problems, persecution, grandiosity and egocentrism) in a culturally sensitive manner. Re-entry planning for the continuity of mental health treatment seems to be especially important for African-Americans, because the likelihood of treatment utilization after return to the community for this group may be lower.

Since logistical barriers were suggested as the primary determinant of treatment disparities in this study, the necessity of ensuring racial equality in the enabling resources of the community that foster mental health treatment utilization is indicated. Locating mental health services in low income, high minority concentration areas, with relatively convenient access to public transportation could reduce treatment disparities in the community. Although some communities currently house mental health centers for the economically disadvantaged, they tend not to advertise their services or engage in much community outreach, since most of these facilities already have long waiting lists due to limited funding and, therefore, limited ability to serve those in need. More funding of these types of resources along with community outreach and education about service availability could increase treatment utilization among African Americans, thereby reducing symptoms of mental illness and ultimately reducing incarceration rates. Additionally, public policy supporting improved and equal access to mental health insurance coverage among all U.S. racial groups could further reduce treatment disparities.

This study supports the need for the adaptive racial socialization strategy of both preparing African American youth for the likelihood of experiencing discrimination, while also educating them about the strengths of African Americans and promoting a sense of pride in their cultural heritage which been shown to serve as a protective factor for psychological distress and engagement in antisocial behavior (Bowman & Howard, 1985; Miller, 1999; Murry, Berkel, Brody, Miller & Chen, 2009). The delivery of culturally competent prevention programs that draw on cultural assets of African Americans and promote Afro-centric values of collective esteem and social harmony could deter the development of

racial-stress related symptoms and promote resilience to adversity. Ultimately, the elimination of institutional racism and individual level discrimination may be necessary to reduce psychological distress among African Americans and promote treatment seeking when symptoms are present.

### Suggestions for future research

Potential differences in the number of treatment facilities in the neighborhoods of Whites and African Americans in need of treatment, the length of waitlists at local treatment facilities, knowledge about available community resources, and health insurance coverage obtained through full-time vs. part-time employment should be explored more directly to further test the hypothesis that logistical barriers disproportionately affect African Americans. Studies which include self-report measures of mental health treatment seeking attitudes and stigma that have been validated on Whites and African Americans and are assessed among both jail and community samples would help to directly test the hypothesis that these predisposing characteristics of the individual are not the key determinant of treatment disparities.

To more fully understand the link between persecution, grandiosity, egocentrism and criminal behavior among African Americans, further research is needed. It is important to determine whether these symptoms are related to perceived discrimination, whether extreme levels of these symptoms differentiate African Americans in jail samples from those in community samples, and ultimately whether these symptoms are predictive of criminal offending or recidivism. If it is true that these symptoms are more elevated among incarcerated African Americans than those in the community and that these symptoms are also related to criminal behavior, this might serve as a possible point of intervention for African Americans -- one that has been neglected in conventional prevention and treatment approaches and might ultimately provide a key to help reduce racially disproportionate rates of incarceration. Racial identity or Afro-centric cultural awareness might mitigate the link between discrimination and grandiosity. Afro-centric prevention and rites of passage programs have shown promising results in deterring delinquency (Potts, 2003; Brookins, 2004). Perhaps the prevention or reduction of grandiosity has been an important yet unmeasured mechanism of action in these programs?

### Acknowledgments

The project described was supported by Grant Number 5F31MH076563-02 from the National Institute of Mental Health. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institute of Mental Health or the National Institutes of Health. This research was also supported by Grant # RO1 DA14694 from the National Institute on Drug Abuse. Many thanks to the members of the Human Emotions Research Lab for their assistance with this research.

### References

- Andersen RM. Revisiting the behavioral model and access to medical care: Does it matter? *Journal of Health and Social Behavior*. 1995; 36:1–10. [PubMed: 7738325]
- Bowman PJ, Howard C. Race-related socialization, motivation, and academic achievement: A study of Black youths in three-generation families. *Journal of the American Academy of Child Psychiatry*. 1985; 24:134–141. [PubMed: 3989153]
- Boykin, AW.; Ellison, C. The multiple ecologies of Black youth socialization: An Afrographic analysis. In: Taylor, R., editor. *African American youth: Their social and economic status in the United States*. Westport, CN: Greenwood Press; 1995.
- Breslau J, Aguilar-Gaxiola S, Kendler KS, Su M, Williams D, Kessler RC. Specifying race-ethnic differences in risk for psychiatric disorder in a USA national sample. *Psychological Medicine*. 2006; 36:57–68. [PubMed: 16202191]

- Brookins, C. Promoting ethnic identity development among African American youth: The role of rites-of-passage. 4th Edition. Jones, R., editor. Hampton, VA: Cobb and Henry; 2004. Black Psychology Bureau of Justice Statistics. Criminal Offenders Statistics. 2004. Also available at: <http://www.ojp.usdoj.gov/bjs/crimoff.htm>
- Bureau of Justice Statistics. Mental Health Problems of Prison and Jail Inmates. 2006. NCJ 213600. Also available at: <http://www.ojp.usdoj.gov/bjs/mhppji.htm>
- Cale EM, Lilienfeld SO. Psychopathy factors and risk for aggressive behavior: A test of the "threatened egotism" hypothesis. *Law and Human Behavior*. 2006; 30(1):51–74. [PubMed: 16729208]
- Colonna-Pydyn C, Gjesfjeld CD, Greeno CG. The factor structure of the Barriers to Treatment Participation Scale (BTPS): Implications for future barriers scale development. *Administration and Policy in Mental Health and Mental Health Services Research*. 2007; 34(6):563–569. [PubMed: 17943436]
- Council of State Governments. Criminal Justice / Mental Health Consensus Project. New York: Council of State Governments; 2002. Also available at [http://consensusproject.org/the\\_report/](http://consensusproject.org/the_report/)
- Crosby AM. African Americans' attitudes toward psychotherapy: The relationship between attitudes and mistrust. *Dissertation Abstracts International: Section B: The Sciences and Engineering*. 2007; 68((5-B))
- Dearing RL, Twaragowski C. The social psychology of help seeking. (In press).
- Delphin ME, Rollock D. University alienation and African American ethnic identity as predictors of attitudes about and likely use of psychological services. *Journal of College Student Development*. 1995; 36:337–346.
- Diala C, Muntaner C, Walrath C, Nickerson KJ, LaVeist TA, Leaf PJ. Racial differences in attitudes toward professional mental health care and in the use of services. *American Journal of Orthopsychiatry*. 2000; 70:455–464. [PubMed: 11086524]
- Edens, J.; Ruiz, M. PAI Interpretive Report for Correctional Settings (PAI-CS). Lutz, FL: Psychological Assessment Resources, Inc; 2005. PAR Staff
- Evans PM. An examination of factors which influence the attitudes of African American males toward psychotherapy. *Dissertation Abstracts International: Section B: The Sciences and Engineering*. 2007; 67((9-B))
- Gagliardi GJ, Lovell D, Peterson PD, Jemelka R. Forecasting recidivism in mentally ill offenders released from prison. *Law and Human Behavior*. 2004; 28:133–155. [PubMed: 15141775]
- Geronimus AT, Hicken M, Keene D, Bound J. "Weathering" and Age Patterns of Allostatic Load Scores Among Blacks and Whites in the United States. *American Journal of Public Health*. 2006; 96:826–833. [PubMed: 16380565]
- Harris KM, Edlund MJ, Larson S. Racial and ethnic differences in the mental health problems and use of mental health care. *Medical Care*. 2005; 43:775–784. [PubMed: 16034291]
- Human Rights Watch. Ill-Equipped: U.S. Prisons and Offenders with Mental Illness. 2003 Also available at <http://www.hrw.org/reports/2003/usa1003/usa1003.pdf>.
- Jordan BK, Schlenger WE, Fairbank JA, Caddell JM. Prevalence of psychiatric disorders among incarcerated women: II. Convicted felons entering prison. *Archives of General Psychiatry*. 1996; 53:513–519. [PubMed: 8639034]
- Kessler RC, Demler O, Frank RG, Olfson M, Jin R, Walters EE. Prevalence and treatment of mental disorders, 1990 to 2003. *The New England Journal of Medicine*. 2005; 352:2515–2523. [PubMed: 15958807]
- Kessler RC, McGonagle KA, Zhao S, Nelson CB, Hughes M, Eshleman S, et al. Lifetime and 12-month prevalence of DSM-III–R psychiatric disorders in the United States: Results from the National Comorbidity Survey. *Archives of General Psychiatry*. 1994; 51:8–19. [PubMed: 8279933]
- Krueger RF, Piasecki TM. Toward a dimensional and psychometrically-informed approach to conceptualizing psychopathology. *Behaviour Research and Therapy*. 2002; 40((5)):485–500. [PubMed: 12038642]
- McGregor I, Nail PR, Marigold DC, Kang S. Defensive pride and consensus: Strength in imaginary numbers. *Journal of Personality & Social Psychology*. 2005; 89:978–996. [PubMed: 16393029]

- Mcneil CT. The effects of symptom severity and cultural mistrust on the formal and informal help-seeking preferences of African-American college students for depression. *Dissertation Abstracts International: Section B: The Sciences and Engineering*. 2006; Vol 66((10-B))
- Miller DB. Racial socialization and racial identity: Can they promote resiliency for African American adolescents? *Adolescence*. 1999; 34:493–501. [PubMed: 10658857]
- Morey, LC. *The Personality Assessment Inventory professional manual*. Odessa, FL: Psychological Assessment Resources; 1991.
- Morey, LC. *An interpretive guide to the Personality Assessment Inventory (PAI)*. Odessa, FL: Psychological Assessment Resources; 1996.
- Moustafa-I SA. Racial identity and cultural mistrust as predictors of African American men's help-seeking attitudes. *Dissertation Abstracts International: Section B: The Sciences and Engineering*. 2007; 67((9-B))
- Muntaner C. Social mechanisms, race, and social epidemiology. *American Journal of Epidemiology*. 1999; 150(2):121–126. [PubMed: 10412956]
- Murry VM, Berkel C, Brody GH, Miller SJ, Chen Y. Linking parental socialization to interpersonal protective processes, academic self-presentation, and expectations among rural African American youth. *Cultural Diversity and Ethnic Minority Psychology*. 2009; 15(1):1–10. [PubMed: 19209975]
- Mutchler JE, Burr JA. Racial differences in health and health care services, utilization in later life: The effect of socioeconomic status. *Journal of Health and Social Behavior*. 1991; 32:342–356. [PubMed: 1765625]
- Name removed for blind review. Gender differences in jail inmates' symptoms of mental illness, treatment history and treatment seeking. *Criminal Behaviour and Mental Health*. 2009; 19:193–206. [PubMed: 19533597]
- Name removed for blind review. Wrongful incarceration? Race differences in reported innocence in a jail sample. Dissertation approved by committee. In press.
- Nickerson KJ, Helms JE, Terrell F. Cultural mistrust, opinions about mental illness, and Black students' attitudes toward seeking psychological help from White counselors. *Journal of Counseling Psychology*. 1994; 41(3):378–385.
- Potts R. Emancipatory education versus school-based prevention in African American communities. *American Journal of Community Psychology*. 2003; 31:173–183. [PubMed: 12741698]
- Robins L, Helzer J, Croughan J, Ratcliff K. National Institute of Mental Health Diagnostic Interview Schedule: Its history, characteristics and validity. *Archives of General Psychiatry*. 1981; 38:381–389. [PubMed: 6260053]
- Robins, LN.; Regier, DA., editors. *Psychiatric Disorders in America*. New York: The Free Press; 1991.
- Ronningstam E, Gunderson J. Descriptive studies on narcissistic personality disorder. *Psychiatric Clinics of North America*. 1989; 12:585–601. [PubMed: 2798198]
- Smedley, BD.; Stith, AY.; Nelson, AR., editors. *The National Academies Press; 2003. Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care. Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*
- Snowden LR. Bias in mental health assessment and intervention: Theory and evidence. *American Journal of Public Health*. 2001; 93:239–243. [PubMed: 12554576]
- Snowden LR, Yamada A. Cultural differences in access to care. *Annual Review of Clinical Psychology*. 2004; 1:143–166.
- Teplin LA. Criminalizing mental disorder: The comparative arrest rate of the mentally ill. *American Psychologist*. 1984; 39:794–803. [PubMed: 6465666]
- Teplin LA. The prevalence of severe mental disorder among mail urban jail detainees: Comparison with the epidemiological catchment area program. *American Journal of Public Health*. 1990; 80:663–669. [PubMed: 2343947]
- Teplin LA. Psychiatric and substance abuse disorders among mail urban jail detainees. *American Journal of Public Health*. 1994; 84(2):290–293. [PubMed: 8296957]
- Teplin LA, Abram KM, McClelland GM. Prevalence of psychiatric disorders among incarcerated Women: I. Pretrial jail detainees. *Archives of General Psychiatry*. 1996; 53:505–512. [PubMed: 8639033]



- Teplin LA, Abram KM, McClelland G. Mentally disordered women in jail: Who receives services? *American Journal of Public Health*. 1997; 87:604–609. [PubMed: 9146439]
- The Sentencing Project. Felony Disenfranchisement Rates For Women. 2004 Also available at: <http://www.sentencingproject.org/pdfs/fvr-women.pdf>.
- The Sentencing Project. Disparity by Geography: The War on Drugs in America's Cities. 2008 Also available at: [http://www.sentencingproject.org/Admin/Documents/publications/dp\\_drugarrestreport.pdf](http://www.sentencingproject.org/Admin/Documents/publications/dp_drugarrestreport.pdf).
- Torrey EF. Editorial: Jails and prisons: America's new mental hospitals. *American Journal of Public Health*. 1995; 85(12):1611–1613. [PubMed: 7503330]
- U.S. Census Bureau, Census 2000 Summary File 1, Matrices P3, P4, PCT4, PCT5, PCT8, and PCT11. Also available at: [http://factfinder.census.gov/servlet/QTTable?\\_bm=y&-geo\\_id=01000US&-qr\\_name=DEC\\_2000\\_SF1\\_U\\_QTP3&-ds\\_name=DEC\\_2000\\_SF1\\_U&-\\_lang=en&-redoLog=false&-\\_sse=on](http://factfinder.census.gov/servlet/QTTable?_bm=y&-geo_id=01000US&-qr_name=DEC_2000_SF1_U_QTP3&-ds_name=DEC_2000_SF1_U&-_lang=en&-redoLog=false&-_sse=on).
- U.S. Department of Health and Human Services. Mental Health: Culture, Race, and Ethnicity-A Supplement to Mental Health: A Report of the Surgeon General. Rockville, MD: 2001.
- Veysey, BM.; Bichler-Robertson, G. In The health status of soon to-be-released inmates: A report to Congress. Vol. Vol. 2. Washington, DC: National Commission on Correctional Health Care; 2002. Prevalence estimates of psychiatric disorders in correctional settings. U.S. Department of Justice. Retrieved from <http://www.ncjrs.gov/pdffiles1/nij/grants/189736.pdf> on November 18, 2008
- Wallace BC, Constantine MG. Africentric cultural values, psychological help-seeking attitudes, and self-concealment in African American college students. *Journal of Black Psychology*. 2005; 31:369–385.
- Wallen J. Providing culturally appropriate mental health services for minorities. *Journal of Mental Health Administration*. 1992; 19:288–293. [PubMed: 10123308]
- Whaley AL. Cultural mistrust and mental health services for African Americans: A review and meta-analysis. *The Counseling Psychologist*. 2001; 29:513–531.
- Williams DR, Williams-Morris R. Racism and mental health: the African American experience. *Ethnicity & Health*. 2000; 5:243–268. [PubMed: 11105267]

**Table 1**

Demographics

Demographic	Total N (%)	White N (%)	African American N (%)	$\chi^2$
Male	282 (68.1%)	120 (29.0%)	162 (39.1%)	
Female	132 (31.9%)	65 (15.7%)	67 (16.2%)	
Total	414 (100%)	185 (44.7%)	229 (55.3%)	1.63

  

Demographic	Total M (SD)	White M (SD)	African American M (SD)	<i>t</i>	<i>d</i>
Age	33.58 (10.04)	33.73 (10.31)	33.47 (9.84)	0.26	0.03
Income	\$21,375(18,579)	\$25,207(21,141)	\$18,207 (15,509)	3.61***	0.38
Years of Education	11.86 (2.13)	12.02 (2.40)	11.73 (1.88)	1.33	0.13

\*  $p < .05$ ,

\*\*

$p < .01$ ,

\*\*\*  $p < .001$

**Table 2**

Mean T Scores on PAI Clinical Scales (by subscale) and Validity Scales

Scale	Subscale	Total	(SD)	W	(SD)	A A	(SD)	F	$d^a$
Somatic Complaints		53.19	11.56	54.40	12.57	52.20	10.59	2.01ns	
	Conversion	54.68	13.45	55.73	13.75	53.84	13.17	0.41ns	
	Somatization	53.03	11.09	54.17	12.29	52.11	9.94	2.67ns	
Health Concerns		50.85	10.37	51.88	11.44	50.01	9.36	2.32ns	
	Anxiety	55.28	11.62	56.95	13.29	53.93	9.91	7.73**	.26
Cognitive		56.62	11.95	57.73	12.69	55.72	11.27	3.10ns	
	Affective	53.62	11.21	55.36	13.03	52.21	9.28	10.02**	.28
Physiological		53.76	10.43	55.53	13.61	52.33	10.43	7.07**	.26
	Anxiety-Rel. Disorders	58.30	12.78	57.34	13.07	59.07	12.52	1.14ns	
Obsess-Compuls.		54.10	10.76	52.34	11.04	55.53	10.33	9.39**	-.30
	Phobias	49.24	10.79	48.70	10.91	49.69	10.70	0.43ns	
Traumatic Stress		63.61	15.44	63.79	15.98	63.46	15.01	0.35ns	
	Depression	<b>57.70</b>	<b>13.00</b>	<b>60.64</b>	<b>14.05</b>	<b>55.32</b>	<b>11.57</b>	<b>17.43***</b>	<b>.41</b>
Cognitive		<b>56.34</b>	<b>13.45</b>	<b>59.69</b>	<b>14.10</b>	<b>53.63</b>	<b>12.28</b>	<b>23.20***</b>	<b>.46</b>
	Affective	57.47	12.96	59.90	14.17	55.50	11.55	11.12***	.34
Physiological		55.57	11.40	57.36	11.93	54.13	10.76	7.68**	
	Mania	<b>58.79</b>	<b>11.84</b>	<b>54.98</b>	<b>11.01</b>	<b>61.88</b>	<b>11.62</b>	<b>37.99***</b>	<b>-.61</b>
Grandiosity		<b>59.96</b>	<b>12.19</b>	<b>54.27</b>	<b>11.19</b>	<b>64.57</b>	<b>10.99</b>	<b>89.43***</b>	<b>-.93</b>
	Activity Level	56.04	12.41	55.45	12.00	56.52	12.75	0.91ns	
Irritability		54.45	12.12	52.56	11.85	55.97	12.15	7.94**	-.28
	Paranoia	59.33	11.40	57.20	12.06	61.05	10.55	5.60*	-.34
Hypervigilance		59.06	11.81	56.89	12.57	60.82	10.88	6.00*	-.33
	Persecution	<b>60.18</b>	<b>13.16</b>	<b>56.68</b>	<b>12.23</b>	<b>63.01</b>	<b>13.23</b>	<b>16.69***</b>	<b>-.50</b>
Resentment		54.42	10.40	54.62	10.77	54.27	10.11	1.42ns	
	Schizophrenia	55.43	13.46	54.72	13.61	56.00	13.34	0.66ns	
Psychotic Exper		52.90	11.94	51.39	11.06	54.13	12.49	5.00*	-.23

Scale	Subscale	Total	(SD)	W	(SD)	A A	(SD)	F	$\eta^2$
	Social Detachment	53.20	11.66	52.62	12.41	53.66	11.02	0.34ns	
	Thought Disorder	56.22	13.94	56.54	14.43	55.96	13.56	0.12ns	
	Borderline Features	63.67	13.13	65.19	14.08	62.44	12.20	4.85*	.21
	Affective Instab.	55.04	12.14	56.58	12.51	53.79	11.72	5.55*	.23
	Identity Problems	61.26	12.53	62.70	13.14	60.10	11.92	4.59*	.21
	Negative Relations.	64.10	12.17	63.24	12.90	64.81	11.53	1.14ns	
	Self-harm (Impuls.)	64.22	15.21	67.34	16.10	61.68	13.96	14.43***	.38
	Antisocial Features		64.25	11.96	64.85	12.37	63.77	11.62	0.87ns
	Antisoc. Behavior	68.90	10.23	69.52	10.70	68.39	9.83	1.15ns	
	Egocentricity	55.13	12.36	53.40	11.50	56.54	12.87	4.25*	-.26
	Stimulus Seeking	58.53	12.93	60.69	13.44	56.77	12.26	7.69***	.30
	Alcohol Problems	59.92	17.69	61.91	19.63	58.31	15.82	6.61**	.20
	Drug Problems	72.97	20.92	76.64	23.90	70.00	17.65	9.03**	.32
	Pos. Impression Management	44.61	12.15	44.26	12.11	44.89	12.20	0.44ns	
	Neg. Impression Management	57.20	13.80	57.26	13.83	57.15	13.82	0.00ns	
	<i>n</i>	409		183		226			

$d$  Cohen's *d*

\*  $p < .05$ ,

\*\*  $p < .01$ ,

\*\*\*  $p < .001$ , ns = non-significant

Note. Scales in boldface are of medium to large effect size (Cohen's *d*) for mean differences

**Table 3**  
Treatment History Prior to Incarceration and Treatment Seeking while Incarcerated

Treatment	Treatment History					
	Total (%)	White (%)	A A (%)	$\chi^2$	p	OR (95% CI)
Psychiatric hospital.	39 (10.2)	23 (13.6)	16 (7.4)	3.96	.047*	.51 (.26–1.00)
Outpatient treat	52 (13.6)	36 (21.3)	16 (7.5)	15.10	.000***	.30 (.16–.57)
Hx mood meds	66 (18.0)	44 (27.3)	22 (10.7)	16.81	.000***	.32 (.18–.56)
Current mood meds	31 (8.9)	23 (15.2)	8 (4.0)	13.26	.000***	.23 (.10–.54)
N	366–384	151–169	198–215			
Requests	Total (%)	White (%)	A A (%)	$\chi^2$	p	OR (95% CI)
Any program	238 (59.6)	110 (62.1)	128 (57.7)	0.83	.37	.83 (.55–1.24)
Psycho-education	152 (38.1)	67 (37.9)	85 (38.3)	0.01	.93ns	1.02 (.68–1.53)
Substance Interven.	142 (35.6)	67 (37.9)	75 (33.8)	0.71	.40 ns	0.84 (.56–1.27)
Support	16 (29.1)	49 (27.7)	67 (30.2)	0.30	.59 ns	1.13 (.73–1.75)
Forensic groups	50 (12.5)	27 (15.3)	23 (10.4)	2.15	.14 ns	0.64 (.35–1.16)
Enrollment	Total (%)	White (%)	A A (%)	$\chi^2$	p	OR (95% CI)
Any program	193 (48.4)	87 (49.2)	106 (47.7)	0.08	.78 ns	0.95 (.64–1.40)
Psycho-educ	125 (31.3)	57 (32.2)	68 (30.6)	0.11	.74 ns	0.93 (.61–1.42)
Substance Interven.	118 (29.6)	56 (31.6)	62 (27.9)	0.61	.42 ns	0.84 (.54–1.29)
Support	102 (25.6)	40 (22.6)	62 (27.9)	1.47	.23 ns	1.33 (.84–2.10)
Forensic groups	50 (12.5)	27 (15.3)	23 (10.4)	2.15	.14 ns	0.64 (.35–1.16)
n	399	177	222			

\*  $p < .05$ ,

\*\*  $p < .01$ ,

\*\*\*  $p < .001$ , ns = non-significant